

**What is claimed is:**

1. A method for maintaining security of a computer system, comprising:  
determining an initial system certainty value for the computer system;  
5 providing access to a database of signatures, each signature including a signature  
certainty value;  
receiving data;  
comparing the received data with the database of signatures;  
increasing the system certainty value if the received data does not match a signature in  
10 the database;  
decreasing the system certainty value if the received data matches a signature in the  
database; and  
filtering the data based on the system certainty value and the signature certainty value  
of a signature matching the received data.  
15
2. The method of claim 1, wherein the data that does not match a signature in the  
database is forwarded to its destination.
3. The method of claim 1, wherein the increased or decreased certainty value  
20 becomes the initial system value.
4. The method of claim 1, wherein the data comprises a packet of data.

5. The method of claim 1, wherein the filtering further comprises forwarding the data if the signature certainty value is less than the system certainty value; and discarding the data if the signature certainty value is less than the system certainty value.

5           6. The method of claim 5, wherein the step of forwarding further comprises generating a message log to indicate that data matching a signature was forwarded.

7. A system for maintaining computer security, comprising:  
means for determining an initial system certainty value for the computer system;  
10       means for providing access to a database of signatures, each signature including a signature certainty value;  
means for receiving data;  
means for comparing the received data with the database of signatures;  
means for increasing the system certainty value if the received data does not match a  
15       signature in the database;  
means for decreasing the system certainty value if the received data matches a signature in the database; and  
means for filtering the data based on the system certainty value and the signature certainty value of a signature matching the received data.

20

8. The system of claim 7, wherein the data that does not match a signature in the database is forwarded to its destination.

9. The system of claim 7, wherein the increased or decreased certainty value becomes the initial system value.

10. The system of claim 7, wherein the data comprises a packet of data.

5

11. The system of claim 7, wherein the means for filtering further comprises means for forwarding the data if the signature certainty value is less than the system certainty value; and discarding the data if the signature certainty value is less than the system certainty value.

10

12. The system of claim 11, wherein the means for forwarding further comprises means for generating a message log to indicate that data matching a signature was forwarded.

13. A computer recording medium including computer executable code for maintaining security of a computer system, comprising:

15

code for determining an initial system certainty value for the computer system;

code for providing access to a database of signatures, each signature including a signature certainty value;

code for receiving data;

code for comparing the received data with the database of signatures;

20

code for increasing the system certainty value if the received data does not match a signature in the database;

code for decreasing the system certainty value if the received data matches a signature in the database; and

code for filtering the data based on the system certainty value and the signature certainty value of a signature matching the received data.

14. The computer recording medium of claim 13, wherein the data that does not  
5 match a signature in the database is forwarded to its destination.

15. The computer recording medium of claim 13, wherein the increased or decreased certainty value becomes the initial system value.

10 16. The computer recording medium of claim 13, wherein the data comprises a packet of data.

17. The computer recording medium of claim 13, wherein the code for filtering further comprises code for forwarding the data if the signature certainty value is less than the  
15 system certainty value; and discarding the data if the signature certainty value is less than the system certainty value.

18. The computer recording medium of claim 17, wherein the code for forwarding further comprises code for generating a message log to indicate that data matching a signature  
20 was forwarded.